DOCUMENT RESUME

ED 030 744 VT 008 791

Dental Assistant Training: Standard Course Outline.
Public Health Service (DHEW), Washington, D.C. Div. of Indian Health.
Pub Date May 68
Note-51p.
EDRS Price MF-$0.25 HC-$2.65
Descriptors-*American Indians, *Curriculum Guides, *Dental Assistants, *Health Occupations Education

Dental assistant programs at Intermountain School-Public Health Service (PHS) Indian Health Center, Brigham City, Utah, PHS Health Center-Haskell Institute, Lawrence, Kansas; and PHS Alaska Native Hospital, Mt. Edgecumbe, Alaska accept a total of 34 trainees from all areas of the Division of Indian Health annually. The 10-month curriculum operates on a daily schedule of 2 hours of didactic study and 5 hours of practical application. The curriculum outline presented represents the base-line of training conducted at the three centers. Major subject areas are: (1) orientation, (2) office procedures, (3) pre-clinical sciences, (4) dental materials, (5) clinical sciences, (6) clinical application, (7) laboratory and technical application, (8) on-the-job training in the private office, (9) dental health education, and (10) the Division of Indian Health dental program. Demonstrations, applications, readings, and visual aids are suggested for each area. (JK)

ED030744

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

D 606

DENTAL ASSISTANT TRAINING

STANDARD COURSE OUTLINE

DIVISION OF INDIAN HEALTH

VT008791

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
3 Public Health Service, (DHEW), Washington, D.C
(3) Division of Indian Health

May 1968

Dental Assistant Training Programs
Division of Indian Health

The Division of Indian Health is most cognizant of the need for qualified auxiliary personnel to help meet the increasing demand for dental services for the Alaska Natives and Indian beneficiaries. All dental assistant training accomplished prior to 1962 was done on an "on-the-job" basis as could best be accomplished under existing conditions. The need for well organized and formal training of auxiliary personnel has been recognized for some time. The three programs existing at the present time have been developed during recent years to help meet this need.

The programs are located at the:

1. Intermountain School - PHS Indian Health Center, Brigham City, Utah
2. PHS Health Center - Haskell Institute, Lawrence, Kansas
3. PHS Alaska Native Hospital, Mt. Edgecumbe, Alaska

All programs are 10 months in length and are conducted on a post-high school graduate level. Qualified applicants are recruited and accepted from all Areas of the Division of Indian Health. Twelve trainees are selected each year for the Intermountain and Haskell programs and 10 for the Mt. Edgecumbe program for an annual total of 34 dental assistant trainees for the three programs. There are over 100 applications received each year for the 34 training positions.

All training centers conduct complimentary training programs in conjunction during the year for Division dental officers and assistants in efficient utilization of auxiliary personnel and clinic management. Emphasis is given toward the "team" approach in providing dental services. The large patient load, diversified dental conditions existing, and varied programs conducted at these centers with concentrated practical application in training afford the trainees unexcelled opportunities for a comprehensive background in the dental assistant profession.

Didactic and clinical manuals and practical training methods to assure "well-rounded" knowledge by the graduating assistant have been developed by the training centers. Constant changes are being made to enhance the effectiveness of the training so that continued progress can be made according to the needs of the Division programs and for contribution to the dental profession.

The curriculum outline represents the base-line of training that is being conducted at the three training centers of the Division of Indian Health.

Course of Study

Textbook for Course
"The Dental Assistant" - III Edition - Brauer and Richardson

Division of Indian Health
a. Curriculum Outline
b. Dental Assistant Manual

Supplementary Manuals - I - VII
"Dental Assisting" - School of Dentistry
University of North Carolina

Daily Notebook and Worksheets

Reference Material:
Effective Dental Assisting - Schwartzrock and Schwartzrock
The Dental Assistant - Shailer Peterson
Dental Anatomy - Wheeler
Review of Dentistry - M. K. Hine
The Dental Assistant - Pauline C. Anderson
Synopsis of Oral Pathology - Bhaskar
ADAA journals - ADA
All Applicable Library Material

Length of Course - One Academic Year

Daily Training Schedule
a. Two Hours Didactic Study
b. Five Hours Practical Application
1. Clinical
2. Laboratory
3. Office

General Outline
of
Dental Assistant Training Curriculum

I. Orientation

II. Office Procedures

III. Pre-clinical Sciences
- A. Anatomy
  - 1. General
  - 2. Dental
- B. Microbiology
- C. Sterilization and Disinfection
- D. Pharmacology
- E. Pathology and Periodontics
- F. Diet and Nutrition
- G. Office Emergencies

IV. Dental Materials

V. Clinical Sciences
- A. Oral Diagnosis and Treatment Planning
- B. Roentgenology
- C. Anesthesia
- D. Operative Dentisty - Chairside Assisting (Technical Procedures & Assisting)
- E. Preventive Dentistry - Dental Health Education
- F. Endodontics
- G. Oral Surgery
- H. Prosthodontics
- I. Orthodontics

VI. Clinical Application

VII. Laboratory and Technical Application

VIII. On-the-job-training in Private Office

IX. Review of Dental Health Education

X. DIH Dental Program

Table of Contents

1.	Orientation	1
2.	Office Procedures	2
3.	General Anatomy	4
4.	Dental Anatomy	4
5.	Microbiology	8
6.	Sterilization and Disinfection	10
7.	Pharmacology	12
8.	Oral Pathology and Periodontics	15
9.	Diet and Nutrition	17
10.	Office Emergencies	18
11.	Dental Materials	20
12.	Oral Diagnosis and Treatment Planning	22
13.	Dental Roentgenology	23
14.	Anesthesia	25
15.	Operative Dentistry - Chairside Assisting	27
16.	Preventive Dentistry - Dental Health Education	29
17.	Endodontics	31
18.	Oral Surgery	33
19.	Prosthodontics	35
20.	Orthodontics	37
21.	Clinical Application	39
22.	Laboratory and Technical Application	42
23.	On-The-Job Training in Private Dental Office	44
24.	Review of Dental Health Education	45
25.	United States Public Health Service Programs	46

I. Orientation

A. Welcome to Trainees and Introduction to Dental Assisting Course
   1. Aims and Objectives of the Course

B. Introduction to Personnel and Dental Clinic

C. Review:
   1. Campus regulations and related problems
   2. Dormitory rules
   3. Training regulations; class attendance, leave time, medical information, etc..
   4. Misc: Banking, etc..

D. Tour of Campus
   1. Library
   2. Cafeteria
   3. Film Library
   4. Administration and department buildings

E. Daily Schedule
   1. Classroom
   2. Clinic
   3. Office
   4. Laboratory

F. Evaluation of Dental Assistant Trainees
   1. Tests and grades
   2. Knowledge and understanding of subject material
   3. Practical application of learning
   4. Clinical performance of duties
   5. Monthly personal interview with supervisors

G. General History of the Profession of Dentistry
   1. Objectives of dentistry
   2. Organizations: ADA, ADAA, Hygienist
   3. Principles of Ethics of ADA - ADAA

H. The Dental Assistant; Status and Responsibilities
   1. Grooming: Personal Cleanliness
   2. Uniforms: type, care and maintenance
   3. Daily health habits

Visual Aids - Films
"Good Grooming for Girls"
"Improve Your Study Habits"
"Care of Hair and Nails"
"Know Your Library"
"Sights and Sounds Around the Dental Clinic"

Assigned Reading
Brauer and Richardson - "The Dental Assistant"
Chapter 1 - The Dental Assistant in the Profession

Supplementary Manual I

Reference Material

II. Office Procedures

A. Typing
   1. Basic information
   2. Use and care of typewriter
   3. Typing duties
      a. All routine correspondence; letters, memorandums, reports, etc..
      b. Weekly schedule, patient appointments, etc..
      c. Monthly narratives and summary reports
      d. Government forms and requisitions
      e. Practice typing

B. Use of Correspondence Manual, Terminology, Abbreviations in Government Correspondence

C. Records
   1. Patient record card
   2. Daily work sheets
   3. Tabulation of work sheets

D. Files
   1. Patient record cards
   2. X-rays
   3. Correspondence

E. Bookkeeping
   1. Invoices, purchase orders, etc..
   2. Banking: checks, deposit slips, reconcile a bank statement, etc..

F. Communications; Written and Oral
   1. English, grammar
   2. Punctuation, spelling
   3. Correspondence construction
   4. Telephone instructions
      a. Extension numbers, intercom procedures at installation
      b. General information; answer calls promptly, identification of caller and person called, identification of department
      c. Originating calls
         1. Plan the call
         2. Write down the correct number
         3. Dial accurately
         4. Identify yourself promptly
         5. State purpose clearly, concisely
         6. Close call politely
      d. Receiving calls
         1. Answer promptly
         2. Identify yourself
         3. Respond to inquiries graciously
         4. Take appropriate notes
         5. Verify important details
         6. Give message to person(s) concerned

e. Answering for others
    1. Answer promptly
    2. Identify yourself
    3. Advise if person is unavailable
    4. Offer to help or transfer call
    5. Obtain caller's name and number
    6. Record message accurately
    7. Be sure person receives the information
f. Telephone tips
    1. Speak in a pleasant tone of voice
    2. Speak slowly and distinctly
    3. Have sufficient information at your fingertips
    4. Return all calls as soon as possible

G. Supplies
    1. Office
        a. Inventory
        b. Ordering (general-special)
        c. Storage
    2. Clinical
        a. Inventory
        b. Usage
        c. Storage
        d. Ordering

Application:
Practice in recording and general office procedures
Practice in use of telephone techniques

Visual Aids - Film:
"Office Etiquette"

Demonstration:
Bell Telephone Co. demonstration
Tapes - planned telephone techniques - conversations

Assigned Reading:
Brauer and Richardson - "The Dental Assistant"
Chapter 2 - The Dental Office and Practice Administration

Supplementary Manual II
Secretarial Procedures

DIH - Dental Assistant Manual
Recording instructions

Reference Material

III. Pre-clinical Sciences - Anatomy

A. Anatomy - General

1. Systems of the body

a. Nervous System

1. Nomenclature
2. Organs of the nervous system
3. Functions of the nervous system

b. Circulatory System

1. Nomenclature
2. Organs of the circulatory system
3. Functions of the circulatory system
4. Blood: composition and function

c. Respiratory System

1. Nomenclature
2. Organs of the respiratory system
3. Functions of the respiratory system

d. Digestive System

1. Nomenclature
2. Organs of digestion
3. Functions of the digestive system

e. Muscular System

1. Nomenclature
2. Emphasis on muscles of the head and neck
3. Functions of muscles

2. Tissues of the body

a. Definition

b. Types

1. Connective
2. Muscle
3. Nerve
4. Blood
5. Epithelial

3. Osteology

a. Cranial bones

1. Function

b. Facial bones

1. Function

B. Anatomy - Dental

1. Oral cavity

a. Maxilla

b. Mandible

c. Temporomandibular joint

d. Supporting structures of the teeth

1. Alveolar bone
2. Periodontal membrane

e. Mucosa

2. Teeth

a. Parts of a tooth

1. Crown
2. Root

b. Classification of teeth
    1. Deciduous
        a. Number
    2. Permanent
        a. Number
    3. Anterior
        a. Central incisors
        b. Lateral incisors
        c. Cuspids
    4. Posterior
        a. 1st and 2nd bicuspids
        b. 1st, 2nd and 3rd molars
    5. Functional types
        a. Incisors
        b. Cuspids
        c. Bicuspids
        d. Molars
    6. Quadrants
        a. Maxillary
        b. Mandibular

3. Tooth identification and general terminology
    a. Crown (coronal) surfaces
        1. Proximal
            a. Mesial
            b. Distal
        2. Lingual
        3. Facial
        4. Occlusal
        5. Axial

4. Anatomical landmarks
    a. Cusp - cusp of carabelli
    b. Cingulum
    c. Mamelon
    d. Ridges:
        1. Marginal
        2. Triangular
        3. Transverse
        4. Oblique
    e. Sulcus
    f. Fissure
    g. Fossa
    h. Pit
    i. Groove
        1. Developmental
        2. Supplemental

5. Structure and development of teeth
    a. Enamel
    b. Dentin
    c. Cementum
    d. Pulp
    e. Root formation

f. Stages of development
g. Eruption

6. Description and differentiating characteristics of the teeth
   a. Maxillary
   b. Mandibular
7. Cavity classification
   a. Simple and compound cavities
   b. Pit and fissure cavities
   c. Smooth surface cavities
   d. Classification according to treatment
      1. Class I - occlusal surface cavities
      2. Class II - proximal surface cavities on posterior teeth
      3. Class III - proximal surface cavities on anterior teeth
      4. Class IV - proximal surface cavities including the incisal angle on anterior teeth
      5. Class V - gingival or cervical cavities
8. Maintenance of tooth position
   a. Occlusal contact
   b. Intercuspal relationship
   c. Muscles of the face and tongue
   d. Proximal contact

C. Dental Anatomy and Physiology
   1. Salivary glands - location and function
      a. Parotid
      b. Submaxillary
      c. Sublingual
   2. Muscles of mastication - location and function
      a. Temporalis
      b. Masseter
      c. Internal pterygoid
      d. External pterygoid
      e. Orbicularis oris
      f. Buccinator
   3. Fifth cranial nerve (trigeminal nerve) - location and function
      a. Opthalmic division
      b. Maxillary division
      c. Mandibular division
   4. Blood supply
      a. Arteries of the head and neck
      b. Veins of the head and neck

<u>Visual Aids - Films:</u>

"Skeletal Systems"
"Respiratory and Circulatory System"
"Hemo - the Magnificent"

"The Teeth"
"Your Teeth"
"Work of the Blood"

Tooth Models
Charts
Work Sheets
Skull
Charts of the Human Body

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 4 - Dental Anatomy and Physiology

Supplementary Manual III - Section 1,. 2.

DIH Dental Assistant Manual

Demonstrations:

Microscopic Study of the Blood

Reference Material

III. Pre-clinical Sciences - Microbiology

A. History and Scope of Microbiology

B. Types of Microorganisms
   1. Bacteria
      a. Streptococcus
      b. Staphylococcus
      c. Lactobacillus
      d. Spirochetes
   2. Rickettsia
   3. Viruses
   4. Spores
   5. Yeast
   6. Molds
   7. Animal Parasites

C. Discussion of Bacteria
   1. Types and shapes - morphology
   2. Characteristics and methods of control
   3. Diseases produced - emphasis on oral
      a. How transmitted
      b. Symptoms
      c. Treatment

D. Discussion of Rickettsia and Viruses
   1. Types and shapes - morphology
   2. Characteristics
   3. Diseases produced
      a. How transmitted
      b. Symptoms
      c. Treatment

E. Discussion of Other Organisms: Spores, Yeasts, Molds, Animal Parasites
   1. Types and shapes
   2. Characteristics
   3. Diseases produced
      a. How transmitted
      b. Symptoms
      c. Treatment

F. Discussion of Antibiotics

G. Discussion of Human Resistance to Infection

H. Application of Principles to Avoid Infection
   1. Adequate clinical disinfection, sterilization and aseptic procedures - maintain sanitary standards
   2. Maintenance of good nutritional and personal habits by dental personnel
   3. Artificial methods (i.e., vaccinations)
   4. Professional treatment of infectious disease for dental personnel; regular check-ups

Visual Aids - Films:

"Infectious Diseases and Natural Body Defenses"
"Louis Pasteur, Man of Science"

Laboratory:

1. Culture technique
   a. Culture items commonly used in a dental office
2. Study material grown on a slide
   a. Identify various forms of microorganisms
3. Discuss ways of preventing spread of microorganisms
4. Use of microscope

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 11 - Bacteriology

Supplementary Manual III - Section 4

DIH Dental Assistant Manual

Reference Material

III. Pre-clinical Sciences - Sterilization and Disinfection

A. General Considerations
   1. Responsibility of the dental assistant
   2. Necessity for sterilization

B. Definition of Terms
   1. Sterilization
   2. Disinfection
   3. Germicide
   4. Antiseptic
   5. Asepsis

C. Methods, Aids, and Techniques in Sterilization and Disinfection
   1. Ultra-violet light
   2. Dehydration
   3. Cold - freezing
   4. Mechanical cleansing
   5. Heat
      a. Dry
      b. Moist - most effective
   6. Chemicals
   7. Dilution
   8. Filtration
   9. Sedimentation
   10. Osmotic changes

D. Types and Uses of Sterilizing Agents
   1. Ultra-violet light
   2. Heat
      a. Dry
         1. Heated air
         2. Flame
      b. Moist
         1. Boiling in water or oil
         2. Steam - superheated
            a. Autoclave - best method
               1. Pelton
               2. Castle
               3. Harvey alcohol
         3. Chemical disinfectants
            a. Zephiran chloride
            b. Alcohol
            c. Creosol compounds
            d. Staphene
         4. Disadvantage of chemical disinfectants
            a. Disinfect rather than sterilize
            b. May rust or corrode instruments
            c. Solutions may deteriorate readily
            d. Immersion time very critical
         5. Use of disposable items
         6. Preparation of instruments for disinfection or sterilization

a. Mechanical cleansing of instruments by scrubbing with brush and detergent
b. Remove lubricant from instruments before sterilization
c. Rinse and dry instruments
d. Adhere strictly to recommended time tables for sterilization

7. Specific preparation and method of sterilization for various articles
   a. Syringes and needles
   b. Burs
   c. Cutting instruments
   d. Rubber gloves
   e. Plastics
   f. Sponges
   g. Glassware
   h. Handpieces, contra-angles
   i. Operative instruments
   j. Surgical instruments

Visual Aids - Films:

"Preventing the Spread of Disease"
"Why Foods Spoil" Yeasts, Molds, Bacteria
"Protozoa - One Celled Animals"

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 12 - Sterilization and Disinfection of Instruments and Materials

Supplementary Manual III - Section 6

DIH Dental Assistant Manual

Reference Material

III. Pre-clinical Sciences - Pharmacology - Common Medicaments and Preparations used in a Dental Office

A. General Information
   1. Authoritative publications and references
      a. United States Pharmacopeia - U.S.P.
      b. Physicians Desk Reference
      c. Accepted Dental Remedies
   2. Sources of drugs
      a. Plants
      b. Minerals
      c. Animals
      d. Synthetics
   3. Laws regulating drugs
      a. Federal Food, Drug and Cosmetic Act
      b. Harrison Narcotics Act
      c. Required registration for handling of narcotics

B. General Uses of Drugs in Dentistry
   1. Relief of pain
   2. Prevention of pain
   3. Combat existing infection
   4. Discussion of the following:
      a. Anesthesia
      b. Hemostasis
      c. Anti-infective
      d. Sedative
      e. Saliva control
      f. Anti-inflammatory
      g. Analgesics
      h. Anti-pyretics

C. Specific Drugs used in Dentistry
   1. Discussion of origin, uses, dosages and dangers of:
      a. Anesthetics
      b. Sedatives - non-narcotic
      c. Antibiotics
      d. Disinfectants
      e. Sterilization
      f. Analgesics
      g. Narcotics
      h. Anti-pyretics
   2. Preparations commonly used in dental practice
      a. Alcohol
         1. Properties
         2. Use and action
      b. Aspirin
         1. Properties
         2. Use and action
      c. Calcium hydroxide
         1. Properties
         2. Use and action

d. Camphorated parachlorophenol
    1. Properties
    2. Use and action
e. Chloroform
    1. Properties
    2. Use and action
f. Codiene Phosphate
    1. Properties
    2. Use and action
g. Cresol
    1. Properties
    2. Use and action
h. Epinephrine
    1. Properties
    2. Use and action
i. Eucalyptol
    1. Properties
    2. Use and action
j. Eugenol
    1. Properties
    2. Use and action
k. Sodium Flouride
    1. Properties
    2. Use and action
l. Karidium Phosphate Fluoride
    1. Properties
    2. Use and action
m. Gelatin Sponges
    1. Properties
    2. Use and action
n. Hydrogen Peroxide
    1. Properties
    2. Use and action
o. Lidocaine Hydrochloride - Xylocaine
    1. Properties
    2. Use and action
p. Metaphen
    1. Properties
    2. Use and action
q. Orange Oil
    1. Properties
    2. Use and action
r. Tetracyclines
    1. Properties
    2. Use and action
s. Penicillin
    1. Properties
    2. Use and action

D. Method of Administering Drugs
    1. Oral
    2. Intradermal
    3. Intramuscular

4. Intravenous
5. Rectal
6. Inhalation
7. Inunction
8. Cataphoresis

E. Prescriptions
1. Form
2. Purpose
3. Legal aspect

F. Weights and Measures
1. Basic units and measure
2. Abbreviations
3. Percentage solutions

Visual Aids - Films:

"Infectious Disease and Man Made Defenses"

Demonstrations:

Use of the Luer-Lock syringe
Irrigation set up

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 14 - Pharmacology

Supplementary Manual III - Section 7

DIH Dental Assistant Manual

Reference Material

III. Pre-clinical Sciences - Oral Pathology

A. Definition of Oral Pathology

B. Reaction of Tissue to Injury

1. Inflammation and repair

a. Definition of inflammation

b. Classification of inflammation

1. Acute
2. Chronic

c. Stages of inflammation

1. Local alarm stage
2. Cellular reaction
3. Resistance stage (granuloma formation)
4. Stage of exhaustion

d. Repair of various tissues

1. Skin
2. Muscles
3. Nerve

2. Definitions

a. Hyperplasia
b. Hypertrophy
c. Atrophy
d. Degeneration
e. Necrosis
f. Neoplasm (Tumor)

1. Benign
2. Malignant

C. Pathology of Hard Tissues

1. Teeth

a. Caries

1. Etiological theories (Acidogenic and Proteolytic)
2. Progression and histopathology
3. Factors influencing caries

b. Traumatic injury

c. Pulpitis

1. Acute
2. Chronic

2. Bone

a. Alveolar abscess

1. Etiology
2. Progress and histopathology
3. Treatment and prevention

b. Cysts

c. Tumors

1. Benign
2. Malignant

d. Systemic diseases

D. Pathology of the Soft Tissues of the Oral Cavity
    1. Periodontal disease
        a. Definition of periodontal disease
        b. Periodontal structures effected by periodontal disease
            1. Gingiva
            2. Periodontal membrane
            3. Cementum
            4. Alveolar process
        c. Classification of periodontal diseases
            1. Inflammatory
            2. Regressive
            3. Productive
        d. Etiology of periodontal disease
            1. Local factors
            2. Systemic factors
            3. Combinations
        e. The inception and progression of periodontal disease
            1. Inception in gingiva
            2. Progression to deeper structures of periodontium
    2. Oral manifestations of systemic diseases
    3. Oral manifestations of nutritional deficiencies
    4. Infections of the oral cavity
        a. Bacterial
        b. Viral
    5. Soft tissue tumors of the oral cavity
        a. Benign
        b. Malignant

E. Congenital and Developmental Defects of the Oral Cavity
    1. Cleft lip and palate
        a. Etiology
        b. Treatment
    2. Anomalies of the teeth
        a. Supernumerary teeth
        b. Mesiodens
        c. Dens in Dente
        d. Anodontia
        e. Enamel hypoplasia
        f. Mottled enamel
        g. Fused and geminated teeth

Visual Aids - Film:

Slides and pictures
"Dental Health: How and Why"

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 10 - Dental Pathology

Supplementary Manual III - Section 3

Reference Material

III. Pre-clinical Sciences - Diet and Nutrition

A. Dentistry as Related to Diet and Nutrition

1. Oral manifestations of nutritional deficiency

a. General considerations:

1. Changes in the lips
2. Alterations in the tongue
3. Alterations in the gingivae
4. Alterations in the buccal and palatal mucosa
5. Alterations in the teeth

b. Treatment of nutritional deficiency manifestations

2. Dental health and nutrition

a. Tooth development
b. Decay prevention
c. Foods for dental health
   1. Detergent diet
   2. Non-detergent diet

B. Basic Nutritional Needs of the Body

1. Classification

a. Liquids
b. Solids

2. Nutrients

a. Proteins
b. Carbohydrates
c. Fats
d. Minerals
e. Vitamins
   1. Vitamin A
   2. Vitamin B complex
   3. Vitamin C
   4. Vitamin D
   5. Vitamin K

3. Function, source, and deficiency effects of nutrients

C. Recommended Diet

1. Foods from basic seven groups
2. Proper caloric intake as related to age, activities, etc..

Visual Aids - Films:

Slides and Pictures

Charts

"Human Body: The Nutrition and Metabolism"
"Metabolism"
"Fundamentals of Diet"
"Understanding Vitamins"
"Modern Nutrition" - (Squibb)

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 15 - Nutrition as Applied to Dentistry

Supplementary Manual III - Section 8

DIH Dental Assistant Manual

Reference Material

III. Pre-clinical Sciences - Office Emergencies

A. Introduction
   1. The dental assistant must be able to recognize emergencies
   2. First aid is a helpful or preventive measure used until the dentist or physician arrives
   3. Important to know what not to do as well as what to do
   4. General procedures in emergencies

B. Emergencies Requiring First Aid
   1. Hemorrhage
      a. Types of hemorrhage
         1. Arterial
         2. Venous
   2. Shock
      a. Definition
      b. Causes
      c. Clinical signs and symptoms
      d. First aid treatment of shock
   3. Fainting (syncope)
      a. Causes
      b. Clinical signs and symptoms
      c. Prevention of fainting
      d. Treatment of fainting
   4. Respiratory failure and asphyxia
      a. Causes
      b. Clinical signs and symptoms
      c. Treatment
         1. Artificial respiration
            a. Mouth to mouth resuscitation
            b. Oxygen
      d. Supplementary measures
   5. Cardiac failure - heart attack
      a. Clinical signs and symptoms
      b. Preventive measures
      c. First aid
   6. Convulsions
      a. Causes
      b. Symptoms
      c. First aid treatment

Visual Aids - Films:

"Pulse of Life"
"Rescue Breathing"
"First Aid on the Spot"
"Radiation in Biology"

Demonstrations:

Chair positions for emergencies
Treatment of emergencies in the dental office
Mouth to mouth resuscitation
Closed cardiac massage

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 13 - First Aid

Supplementary Manual III - Section 5

DIH Dental Assistant Manual

Reference Material

IV. Dental Materials

A. Introduction
   1. Materials and matter
      a. Nature of matter
      b. States of matter
      c. Properties of matter; the dental significance of the properties of matter
   2. Definitions:
      a. Strength
      b. Hardness
      c. Toughness
      d. Elasticity
      e. Stiffness

B. General Classification
   1. Inorganic materials
      a. Metals and alloys
         1. Dental amalgam
         2. Dental mercury
         3. Gold and gold alloys
      b. Ceramic materials
         1. Plaster and stone
         2. Investments
         3. Cements
   2. Organic materials
      a. Impression materials
      b. Waxes
      c. Base materials

C. Specific Materials
   1. Amalgam alloy
      a. Composition
      b. Advantages
      c. Procedure for manipulation and mixing
      d. Storage
      e. Results of improper mixing
   2. Dental cements
      a. Zinc-oxide eugenol
      b. Zinc-phosphate
      c. Silicate
      d. Plastics (acrylic-resin)
      e. Constituents and properties of dental cements
         1. Composition
         2. Uses
         3. Mixing techniques
         4. Advantages and disadvantages
   3. Pulp capping and cavity liner materials
      a. Pulpdent
      b. Dycal
      c. Cavitec
      d. Mizzy
      e. Copalite

4. Gypsum products
   a. Dental plaster
   b. Class I stone
   c. Class II stone
   d. Constituents and properties of gypsum products
      1. Composition
      2. Uses
      3. Mixing techniques
      4. Results of improper techniques
      5. Setting time and expansion
      6. Accelerators and retarders
5. Impression materials
   a. Types
      1. Rigid
      2. Plastic
      3. Elastic
   b. Uses
6. Dental waxes
   a. Types
   b. Uses
7. Gold alloys
   a. Casting gold
      1. Constituents
      2. Uses
      3. Casting techniques and procedures
   b. Gold foil
      1. Advantages and uses
      2. Types
      3. Technique of placement

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapters 5, 6, 7, 8, 9
Structure and Properties of Dental Materials; Gypsum Products; Impression Materials, Dental Waxes, and Organic Denture Base Materials; Inlay Investments and Casting Procedures; Gold and Their Uses and Amalgam Alloy Dental Cements

Supplementary Manual IV

DIH Dental Assistant Manual

Reference Material

V. Clinical Sciences

A. Oral Diagnosis and Treatment Planning

1. Patient history
    a. Chief complaint
    b. Patient's statement of general health
    c. Complete medical records
        1. The rheumatic patient
        2. The diabetic patient
        3. The cardiac patient
        4. The patient's allergies
        5. The epileptic patient
        6. Other medical considerations
    d. Importance of maintaining complete written record of all medical-dental procedures
2. Clinical examination
    a. Examination of related extraoral structures
        1. Scars
        2. Lymph nodes
        3. Asymmetric features
        4. Questionable lesions
    b. Examination of intraoral structures
        1. Soft tissues
        2. Hard tissues
    c. Patient's mental state
    d. Patient's physical state
        1. Degree of debilitation
        2. Febrile patient
        3. Any crippling condition
3. Diagnostic aids
    a. Roentgenology
    b. Biopsy and exfoliative cytology
    c. Medical laboratory
4. Treatment plan
    a. Resultant plan of the total needs of the patient
    b. Basis of plan
        1. Patients' systemic condition
        2. Patients' mental attitude
        3. Patients' oral condition
        4. Prognosis

Visual Aids

Medical Records
Tour Medical Laboratory

Demonstration:

Patient examination

Assigned Reading:

Supplementary Manual V - Section 2

DIH Dental Assistant Manual

Reference Material

V. Clinical Sciences - Roentgenology

A. Introduction to Dental Radiography and Terminology
   1. Propagation of x-rays
   2. Dental x-ray unit
      a. Component and circuitry
      b. Use and care
   3. Hazards of x-ray
      a. Somatic
      b. Genetic
   4. Protective measures
      a. Protection to the patient
      b. Protection to the operator
   5. Dental x-ray films
      a. Intraoral
         1. Periapical
         2. Interproximal
         3. Occlusal
         4. Bitewing
      b. Extraoral
         1. Cephalometric
         2. Panorex
      c. Sizes and uses
         1. Adult
         2. Standard
         3. Child
      d. Sensitivity of films
         1. Slow speed-regular
         2. Medium speed - radiatized
         3. Ultra-speed - fast
      e. Handling and storage of film

B. Radiographic Technique
   1. Positioning patient
   2. Film placement
   3. Finger position
   4. Angulation

C. Processing X-rays
   1. Dark room facilities
   2. Procedures; developing, fixing, washing and drying
   3. Mounting x-rays
   4. Filing x-rays

D. Quality Factors in X-rays
   1. Exposure time
   2. Milliamperage and kilovoltage
   3. Target - subject distance
   4. Patient cooperation
      a. Remove glasses, dentures, appliances which might scatter radiation
      b. Avoid movement during exposure

5. Do not use out dated film
6. Processing procedures - timing, temperature of solutions, etc..

Visual Aids - Film:

Charts
Booklets
a. X-ray in Dentistry - Eastman Kodak Co.

Demonstrations:

Taking x-rays
a. Periapical
b. Bitewings

Preparation of solution
a. Developer
b. Fixer

Processing films
Drying and mounting radiographs

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 18 - Dental Roentgenology

Supplementary Manual V - Section 2

DIH Dental Assistant Manual

Reference Material

V. Clinical Sciences - Anesthesia

A. History of Anesthesia

B. Definitions
   1. General anesthesia
   2. Local anesthesia
   3. Analgesia
   4. Topical anesthetic

C. Anatomy of the Oral Cavity and Anesthesia

D. Pre and Post Operative Medication

E. Local Anesthesia
   1. Indications
   2. Types of injections
      a. Infiltration
      b. Block
   3. Reason for aspiration
   4. Preparation of site for injection
   5. Types of local anesthetic
      a. Xylocaine
      b. Procaine
      c. Novocaine
      d. Carbocaine
      e. Various topical ointments
   6. Complications
      a. Allergic reactions
         1. Local
         2. Anaphylaxis
      b. Infections
      c. Synocope (fainting)
      d. Pain
      e. Swelling
   7. Contraindications in local anesthesia
      a. Medical history of patient
      b. Drug therapy of the patient
      c. Allergies
   8. Advantages of local anesthesia
      a. Relief and prevention of pain
      b. Reduces flow of saliva
      c. Relaxation and cooperation of the patient

F. Analgesia and Hypnosis
   1. Indications for use

G. General Anesthesia
   1. Indications for use
   2. Pre anesthetic, pre operative and post operative care of patient
   3. Emergency situations
      a. Artificial ventilation
      b. Artificial circulation
   4. Methods of administration
      a. Inhalation

b. Intravenous
c. Rectal

5. Drugs used
   a. Nitrous oxide
   b. Sodium pentathol
   c. Ether
   d. Other drugs used
6. Stages of anesthesia
   a. Stage 1 - analgesia
   b. Stage 2 - excitement
   c. Stage 3 - surgical
   d. Stage 4 - respiratory paralysis (danger stage)
7. Administration in a dental office
   a. Aseptic procedures
   b. Pre - operative and post-operative care of patient
   c. Proper position of patient
   d. Maintain open airway

Visual Aids - Films:

"About the Human Body"
"Fundamentals of the Nervous System"

Demonstrations:

Syringe set-up
Observe administration of general anesthesia at the local hospital

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 25 - Anesthesiology and Oral Surgery

Supplementary Manual V - Section 3

DIH Dental Assistant Manual

Reference Material

V. Clinical Science - Operative Dentistry - Chairside Assisting

A. Introduction and Discussion of Functions of Operative Dentistry
   1. Diagnosis of dental conditions of patients
   2. Prevention and treatment of diseases of the natural teeth
   3. Maintenance of dental health

B. Knowledge of:
   1. Operative dentistry terminology
   2. Cavity designs
   3. Steps in cavity preparation
   4. Procedures incident to restoring the teeth

C. Objectives in Restoring Teeth
   1. Arrest the loss of tooth structure
   2. Prevent recurrence of caries
   3. Restore proper tooth contour
   4. Restore function
   5. Restore esthetics

D. Operative Procedures
   1. Diagnosis
      a. Clinical examination and diagnosis
      b. Evaluation of radiographs
      c. Study casts
      d. Medical and dental histories
   2. Injection of anesthesia
   3. Control of moisture
      a. Rubber dam
      b. Absorbent cotton rolls
      c. Saliva ejector
      d. Evacuating equipment
   4. Cavity preparation
      a. Prepare set-ups
      b. Passing, exchanging and receiving instruments
      c. Use of water syringes and evacuation equipment
   5. Restoration of the teeth
      a. Preparation and handling of the filling materials

E. Psychology and Chairside Assisting
   1. Definition of psychology
   2. Psychological factors of importance to a dental assistant

F. Dental Team in Practice
   1. Specific chairside duties
      a. Preparation of the operatory and clinic
      b. Preparation of the patient
      c. Assisting at the chair
         1. Know all instruments used in procedure
         2. Use good position (standing and sitting)
         3. Keep operative area clear with evacuator
         4. Have next instrument ready immediately
         5. Pass instruments quickly but firmly to dentist
         6. Retract tissues so dentist can see adequately

7. Be alert - constant attention to operation at hand

d. Roving assistant duties
   1. Arrange instrument tray
   2. Assemble syringe
   3. Arrange all materials
   4. Place record card and x-rays on cabinet
   5. Place hydroceptor
   6. Mix materials as needed
   7. Place matrix bands
   8. Record all work done on patient record card - return card to office
   9. Dismiss patient
   10. Escort and prepare next patient accordingly for operative work

Visual Aids - Film:

"Dental Assistants, Their Effective Utilization"

Demonstrations:

Cabinet arrangements - instrument identification
Cannister and tray set-up - instrument identification
Use of hydroceptor
Place matrix band in retainer
Place matrix around prepared tooth
Loading amalgam carrier

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 20 - Applied Psychology
Chapter 22 - Assisting in Operative Procedures

Supplementary Manual V - Section 4

DIH Dental Assistant Manual

Reference Material

V. Clinical Sciences - Preventive Dentistry - Dental Health Education

A. The Role of Preventive Dentistry in Preventing Dental Caries
   1. Review of caries etiology
   2. Prevention of caries
      a. Increase tooth resistance
         1. Fluoride
            a. Fluoridated water
            b. Topical fluoride
            c. Dietary supplement
            d. Fluoridated tooth paste
            e. Fluoride prophylaxis
         2. Remineralization of tooth with fluoride and phosphates
      b. Reduce attack rate
         1. Dietary control
         2. Frequency of meals
         3. Oral hygiene of patient - good toothbrushing habit
   3. Patient motivation - dental health education
   4. Caries activity tests
   5. Advantages of regular dental care

B. The Role of Preventive Dentistry in Preventing Periodontal Disease
   1. Definition of periodontal disease
   2. Classification of periodontal disease
      a. Inflammatory
      b. Regressive
      c. Productive
   3. Etiology of periodontal disease
      a. Local
      b. Systemic
      c. Combined
   4. Patient education in preventive periodontics
      a. Value of effective oral hygiene
            Socially
            Physiologically
      b. Sequelae of poor oral hygiene
      c. Correction of oral habits
      d. Value of proper nutrition
      e. Sequelae of improper nutrition
      f. Patient motivation to value good dental health
   5. Preventive periodontal techniques
      a. Periodic radiographic examination of dentition
      b. Detailed examination of the gingiva and periodontium
      c. Prophylaxis
            Value
            Technique
      d. Restoration of carious teeth

e. Replacement of missing teeth
f. Biopsy of abnormal tissues
g. Laboratory tests
h. Periodic recall
i. Early corrective periodontal therapy
j. Patient education

6. Factors influencing oral hygiene
   a. Age
   b. Periodontal diseases
   c. Deposits and stains on teeth
   d. Tooth brushing technique
   e. Professional dental care
   f. Fixed and removable dentures and their care
   g. Diet
7. Periodontal instruments and their uses
   a. Scalers, hoes, curettes, files, chisels, brushes and rubber cups are used to remove coronal and subgingival irritants
   b. Diamonds and carborundum stones, sandpaper discs and pumice used in occlusal adjustments
   c. Periodontal knives, gingival shears, surgical abrasives used in periodontal corrective procedures

Visual Aids - Films:

"Twelve Authorities Evaluate Fluoride"

Demonstration:

Toothbrushing techniques
Prophylaxis - polishing - scaling
Topical application of fluoride

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 21 - Preventive Dentistry

Supplementary Manual V - Section 10 .

Reference Material

V. Clinical Sciences - Endodontics

A. General Principles of Endodontics
   1. Disease of the pulp and periapical tissues
   2. Tooth vitality

B. Endodontic Procedures
   1. Diagnosis
      a. History of pain
      b. Pre-operative radiographs
      c. Vitality tests
      d. Treatment planning and preparation
   2. Cavity preparation
      a. Opening into, removing material and enlarging canal
      b. Radiographic measurement
      c. Irrigation of the canal
      d. Root canal cultures and medications; taking the culture, placing medicaments in the canal
   3. Obturation of the canal
      a. Various materials used; gutta percha cones, silver cones, sealers, etc..
   4. Pulp capping
   5. Pulpotomy
   6. Surgical endodontics
      a. Variations from general endodontic procedures
      b. Reasons and indications for surgery: currettage, apicoectomy
      c. Importance of asepsis and surgical cleanliness; operatory, instruments, patient and operator

C. Assisting During Procedure
   1. Perform or assist with diagnostic procedures
   2. Maintain asepsis
   3. Assisting the dentist in provision of treatment
      a. Placing rubber dam
      b. Passing instruments
      c. Retracting tissue
      d. Aspirating
      e. Adjusting light
      f. Preparing materials, i.e., x-rays, canal instrumentation, medicaments, etc..
      g. Sterilizing instruments and materials at the chair
         1. Bead sterilizer
         2. Flame

D. Post-Operative Procedures
   1. Radiographs
   2. Instructions for the patient
   3. Sterilization and storage procedures of instruments and materials

Visual Aids - Films:

"Immediate Endodontics and Periapical Surgery"
"Root Canal Therapy - Endodontic Procedures"
"Basic Endodontics"
"Surgical Endodontics"

Demonstrations:

Placement of rubber dam
Use of the vitalometer
Dental assistant role in endodontic therapy
Setting up instruments for all endodontic procedures
Mixing cements and sealers

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 23 - Endodontic Therapy

Supplementary Manual V - Section 6

DIH Dental Assistant Manual

Reference Material

V. Clinical Science - Oral Surgery

A. Definition and General Considerations
   1. Radiography
   2. Pathological conditions
   3. Consideration of complications

B. Procedures of Oral Surgery
   1. Removal of teeth
      a. Routine extraction
      b. Multiple extractions
      c. Impactions; imbedded teeth
      d. Unerupted teeth
      e. Malpositioned teeth
      f. Supernumerary teeth
   2. Removal of bone
      a. Alveolectomy
      b. Cystectomy
      c. Abnormal bony growth (tori)
   3. Soft tissue surgery
      a. Reduction of hypertrophied or hyperplastic fibrous gingiva
      b. Frenectomy
      c. Incision and drainage
      d. Biopsy
      e. Treatment of injuries

C. Basic Surgical Instruments
   1. Identification
   2. Clinical application
   3. Sterilization and storage

D. Prevention from Extra-Oral Contamination
   1. Instructions to the patient
   2. Sterile instruments and sterile transfer of instruments
   3. Surgical preparation of the assistant and dentist
      a. Care of the hands
      b. Sterile gown for the dentist

E. General Duties of the Assistant
   1. Preparatory duties
      a. Patients chart, medical records, x-rays, etc..
   2. Duties during procedure
   3. Post-operative duties
      a. Instructions for the patient
      b. Sterilize instructions and clean operatory

<u>Visual Aids - Film</u>:

"Mandibular Third Molar Surgery"

Demonstrations:

Preparation of patient
Preparation of operatory
Setting up surgery tray
Passing instruments
Sterilization procedures

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 25 - Anesthesiology and Oral Surgery

Supplementary Manual V - Section 9

DIH Dental Assistant Manual

Reference Material

V. Clinical Science - Prosthodontics

A. Introduction

B. Classification of Prosthodontics
   1. Crown and/or bridge prosthesis
   2. Complete denture prosthesis
   3. Partial denture prosthesis

C. Crown and Bridge Prosthodontics
   1. Bridge components
      a. Abutments
      b. Retainer
      c. Pontic
      d. Connector
      e. Crowns
      f. Partial crowns
   2. Classification of bridges
      a. By location
      b. Manner of construction
   3. Indications for bridgework
   4. Importance of bridgework
   5. Chair procedures
      a. Examination and diagnosis
      b. Abutment preparation
      c. Impressions
      d. Try-in appointment
      e. Cementation appointment

D. Partial Denture Prosthodontics
   1. Nomenclature and components
   2. Chair procedures
      a. Examination and diagnosis
      b. Preliminary impressions
      c. Study models
      d. Final impressions
      e. Metal framework try-in
      f. Finished case
   3. Laboratory procedure
      a. Models - pouring and trimming
      b. Custom made trays
      c. Polishing appliance

E. Full Denture Prosthesis
   1. Examination and diagnosis
      a. Medical history
      b. Dental history
      c. Radiographs
      d. Preliminary records
   2. Chair procedures
      a. Preliminary impressions
      b. Final impressions
      c. Recording centric relation and interarch relationships

1. Construction and use of bite rims
d. Try in appointment
e. Delivery of the denture
1. Instruction for the patient
3. Immediate dentures
a. Advantages and disadvantages
b. Variations of construction
c. Delivery of immediate dentures
4. Laboratory procedures
a. Models - pouring and trimming
b. Constructing custom trays
c. Constructing base plates and bite rims

F. Inlays and Crowns
1. Demonstrations only:
a. Models depicting each step of construction
b. Wax pattern - carving
c. Spruing
d. Investing
e. Wax elimination (burn out)
f. Casting
g. Finishing and polishing
h. Cementation

Visual Aids - Films:

Prepared dies
Types of bridges
Charts
Slides

Demonstrations:

Impressions
Making bite rims
Review of models

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 26 - 27 - Prosthodontics

Supplementary Manual V - Section 5 and 7

DIH Dental Assistant Manual

Reference Material

V. Clinical Sciences - Orthodontic

A. Definitions and Terminology

B. Divisions of Orthodontics
   1. Preventive orthodontics
      a. Treatment of teeth to preserve the integrity of a normal arch
      b. Responsibility of the general dentist
   2. Interceptive orthodontics
      a. Interuption or interception by treatment of a condition which has already progressed to abnormality
   3. Corrective orthodontics
      a. Ultimate clinical approach
      b. "Exclusive province of the specialist"

C. Treatment Procedures Related to Divisions of Orthodontics
   1. Preventive orthodontics
      a. Proper restoration of interproximal caries so space availability does not change.
      b. Recognition and elimation of deletenious oral habits which may alter normal oral development or produce deformity
      c. Placement of space maintainers; fixed and removable
   2. Interceptive orthodontics
      a. Planned serial extractions
      b. Space maintained for eruption of permanent teeth in cases of premature loss of decidious teeth
      c. Correction of cross bite
      d. Removal of supernumerary teeth
   3. Corrective orthodontics
      a. Appliance therapy
      b. Conditions requiring correction
         1. Disharmony between upper and lower arch
         2. Disharmony between the skeleton and the teeth
         3. Disharmony in the oral function

D. Etiology of Malocclusion
   1. Genetic origin
   2. Systemic influence
   3. Local oral problems

E. Diagnostic Aids
   1. Patient records; medical and dental
   2. Oral examination
   3. Photographs
   4. Study models
   5. X-rays
      a. Periapical
      b. Cepholametric

F. Treatment Aids
   1. Removable appliances
   2. Non-removable appliances
   3. Retainers

G. Appointments
   1. Preliminary appointment
   2. Records appointment
   3. Case presentation, consultation appointment
   4. Appliance appointments
      a. Cementation
      b. Tying in the arch
   5. Adjustment appointments
   6. Completion appointment

H. Laboratory Procedures
   1. Pouring models
   2. Finishing and polishing models
   3. Fabrication of appliances
   4. Cephalometric tracing

Visual Aids - Films:

Removable appliances
Non-removable appliances
Models - Class I, II, III occlusion
Photographs
Magnetic face
   a. Teeth
   b. Profiles
Space Maintainers

Charts

Demonstrations:

Trimming models
   a. Conventional method
   b. With protractor attachment
Use of electric spatulator
Processing cephalometric x-ray
Fabricating orthodontic appliances

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
   Chapter 29 - Orthodontics

Supplementary Manual III - Section 11

DIH Dental Assistant Manual

Reference Material

VI. Clinical Application

A. Responsibilities and Utilization of the Dental Assistant
   1. Preparation for the patient appointment
   2. Patient treatment
   3. "Cleaning up" after treatment
   4. Definite patter - sequence of work and instrumentation for a given procedure. (easier for assistant to learn)
   5. Specific duties given to each employee leaving nothing to chance
   6. Teamwork at the chairside
      a. Work area
      b. Operator and auxillary work positions (seating)
      c. Terminology
      d. Equipment: Maintenance & care
      e. Movement classification

B. Dental Team in Practice
   1. Work area - provide maximum function
      a. Dentist, assistant seating positions:
         1. Dentist: 12 o'clock right rear to 7 o'clock right front
         2. Assistant: Faces patient in general area of the 3 o'clock to 4 o'clock position. Opposite from and facing the dentist
      b. Tray set-up (mobile cabinet), unit, and the patient's mouth - within finger tip reach of the assistant and the dentist
      c. Second assistant covers all other work areas
   2. Mobile equipment
      a. Contains essentials for operative procedures - items most often used more easily accessible
      b. Cabinet top holds tray set-up
         1. Basic instruments
         2. Specific instruments added to the tray before procedure
      c. Mobile cabinet and tray set-up at assistant's side and back of patient (out of patients' view)
   3. Sitting to work
      a. Stool properly constructed essential
      b. Dentist and assistant seated correctly for distribution of body weight and maximum relief from tension
   4. Patient positions in the chair
      a. Conventional chair
         1. Back rest should provide support for small of the patients' back
         2. Headrest should position the patients' head in relation to the spine as it would be if the patien were standing
         3. The feet should rest comfortably on the footrest
         4. Tilt the chair to operating position (entire chair
      b. Contour chair
         1. Gives full support to patient's body

2. The head rest can be raised or lowered for convenience of operator for sit-down dentistry

5. Utilization of the second assistant
   a. Preparation of set-ups
   b. Seats patients
   c. Dismisses patients
   d. Cleans the operatory
   e. Records the patient's history, takes radiographs, prepares materials, and records information given by the dentist'
   f. Develops and mounts x-rays
   g. Sterilization of instruments
6. Chairside responsibility of the assistant
   a. Instrument exchange
   b. Use of the oral evacuator

C. Oral Diagnosis, Radiography and Treatment Planning
   1. Examination
      a. Set-up
      b. Charting
   2. Radiography
      a. Set-up
      b. Seating patient - head positions
      c. Angulation
      d. Film positioning
      e. Occlusal examination
      f. Processing procedures
   3. Planning treatment

D. Anesthesia
   1. Preparation for the injection
      a. Set-up
   2. Procedure followed during the injection

E. Operative Dentistry
   1. Help the dentist accomplish the procedure as quickly and smoothly as possible
   2. Instruments and materials must be readily accessible
   3. Specific instructions for preparation, restoration, finishing and polishing set-ups for the following:
      a. Rubber dam placement
      b. Rubber dam removal
      c. Silver amalgam restoration
      d. Silicate cement restoration
      e. Gold foil restoration
      f. Gold inlay restoration

F. Crown and Bridge Prosthodontics
   1. Abutment preparation
   2. Impressions
   3. Fabrication of temporary
   4. Cementation of finished bridge

G. Endodontics
   1. Diagnosis
   2. Canal instrumentation and accessories
   3. Taking the culture
   4. Canal obturation

H. Prosthodontics
   1. Assisting in denture construction

I. Oral Surgery
   1. Assistants primary responsibilities
      a. Aspiration
      b. Maintaining the reflection of tissue flaps
      c. Retraction of the cheek and lips
      d. Assisting in the placement of sutures
      e. Care of instruments

J. Periodontics
   1. Basic procedures
      a. Cleaning, appointments; scaling, curettage and polishing
      b. Surgery
      c. Occlusal adjustment
   2. Specific procedures
      a. Scaling and subgingival curettage
      b. Occlusal adjustment
      c. Gingivectomy
      d. Periodontal dressing

K. Orthodontics
   1. Records appointment
      a. Permanent record folder
      b. Intra-oral radiographs
      c. Cephalometric radiographs
      d. Photograph
      e. Alginate impressions
      f. Pouring, trimming, finishing and identifying models
   2. Pinching bands
   3. Fabrication of a lingual arch
   4. Band cementation
   5. Tying in the arch wire
   6. Adjustments
   7. Completion and retention
   8. Removable preventive orthodontic appliance

NOTE: Demonstrations and detailed hand out instructions for each procedure given to the trainees

Visual Aids - Films:

"Dental Assistants, Their Effective Utilization"

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 19 - Care of Instruments and Equipment
Chapter 20 - Applied Psychology
Chapter 22 - Assisting in Operative Procedures

Supplementary Manual VII

DIH Dental Assistant Manual

Reference Material

VII Laboratory and Technical Application

A. Gypsum Products
   1. Fundamental rules for handling and storage of gypsum products in the laboratory
   2. Plaster of Paris
      a. Consistency
      b. Setting time
      c. Hand and mechanical mixing
   3. Dental Stone
      a. Consistency and setting time
   4. Technique for pouring models

B. Irreversible Hydrocolloid
   1. Fundamental rules for handling and storage
   2. General observations and characteristics of alginate impression material
   3. Prepare a tray with elastic impression material
   4. Take impressions of maxillary and mandibular dentoform arches
   5. Construct stone models

C. Tray Materials and Metallic Oxide Paste
   1. Fabricate custom impression trays for final impressions
      a. Impression compound
      b. Acrylic powder (polymer) and liquid (monomer)
   2. Mix and use corrective lining for final impression
      a. Metallic oxide paste
   3. Box an impression

D. Baseplates and Wax Bite Rims
   1. Construct a shellac baseplate and wax bite rim

E. Mix the Following Materials Ready for Use
   1. Zinc oxide eugenol cement
   2. Zinc phosphate cement
   3. Silicate cement
   4. Resin filling material
   5. Amalgam

F. Reversible Hydrocolloid and Rubber Impression Material
   1. Set-up the hydrocolloid unit
   2. Prepare reversible hydrocolloid impression material
   3. Prepare rubber impression material
   4. Load a tray and take an impression of a dentoform. Construct a stone model

G. Dental Castings
   1. Demonstrations:
      a. Carving wax pattern
      b. Spruing
      c. Investing with thermal investment; with hygroscopic investment
      d. Casting procedures

Demonstrations:

All laboratory procedures

Assigned Reading

Supplementary Manual VI

DIH Dental Assistant Manual

VIII. On-the-Job Training in Private Dental Offices

A. Telephone Techniques

B. Records and Filing
1. Appointments
2. Recall System
3. Supplies
4. Correspondence
5. Accounts
6. Banking

C. Chairside Assisting

D. Laboratory Procedures

Assigned Reading:

Brauer and Richardson - "The Dental Assistant"
Chapter 16 - Records
Chapter 17 - Supplies

Supplementary Manual I - Review

Supplementary Manual II - Review

IX. Review of Dental Health Education

A. Classroom Demonstration

B. Movies and Slides

C. Pamphlets

D. Posters

E. Lectures to School Classes

F. Demonstration of Toothbrush Technique

G. Demonstration of Topical Application of Fluoride

X. United States Public Health Service Programs

A. General Orientation
   1. Division of Hospitals
   2. Division of Indian Health

B. Employment Opportunities

C. Civil Service Data

D. Pay Scales

E. Educational Opportunities

F. Division of Indian Health Dental Program
   1. Philosophy
   2. Program Objectives
   3. Priorities of Treatment
   4. Geographical Location of DIH Clinics
   5. Specific Program Considerations

G. Division of Indian Health Manual Review